

CLAIMS:

1. Electrophoretic display device, comprising a layer of electrophoretic material, being sandwiched between a first and a second substrate, a pixel of said display further comprising a first and a second electrode for locally controlling the material of said electrophoretic layer, characterized in that said first and second electrodes are positioned on essentially the same distance from said first substrate, so that an essentially lateral field is generated in said electrophoretic layer when a signal is applied over said electrodes, in order to enable transreflective operation.
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2. Display device according to claim 1, wherein said electrodes are arranged essentially parallel to each other.
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3. Display device according to claim 1 or 2, wherein said electrodes are arranged essentially on said first substrate.
- 15 4. Display device according to claim 3, wherein said first substrate is a transmissive front substrate.
5. Display device according to claim 3 or 4, further comprising a light shield element for generating a reservoir part of said pixel, said light shield element being arranged
20 between said first substrate and one of said electrodes.
6. Display device according to any one of the preceding claims, wherein a reflector element is arranged on one of said substrates, being a back substrate, in the area between said electrodes as seen from a viewer side of said display device.
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7. Display device according to claim 6, wherein said back substrate is transmissive and said reflector is one of a semi-transmissive reflector or a patterned reflector, in order to allow transreflective operation.

8. Display device according to claim 7, wherein the patterned reflector is such that the pixel comprises a reflector area and a transmission area, each essentially extending between said first and second electrode.

5 9. Display device according to claim 7, wherein the patterned reflector is such that the pixel comprises a reflector area and a transmission area, each being essentially parallel with said first and second electrode.

10 10. Display device according to any one of the preceding claims, wherein said layer of electrophoretic material consists of a suspension of one of absorbing or reflecting particles in a liquid.

11. Display device according to any one of the preceding claims, wherein said layer of electrophoretic material comprises two or more domains, containing particles having 15 mutually different absorption spectra.

12. Display device according to any one of the preceding claims, said layer of electrophoretic material comprises at least one domain comprising two or more types of particles having mutually different absorption spectra.